

GRAPH THEORY UTILIZATION IN WEBSITE DEVELOPMENT

ABSTRACT

A computer-implemented method for facilitating website development by a
5 website developer from a supplied data schema. The method includes facilitating the
specification of a user data model from the data schema in an accurate and user-
friendly manner. The method includes modeling the data schema using graph theory
and extracting from the graph possible relationships pertaining to a particular table to
allow the website developer to choose the desired relationship as part of the user data
10 model specification process. The method also includes automatically extracting the
SQL statements from the selected relationship. The graph is also leveraged to support
the data integrity requirements of foreign key relationships during the record addition
process and to support quality control on the supplied data schema to pinpoint circular
reference errors.

15